

Listing of Claims

1-19 (cancelled).

20. (Currently Amended) A method of radio communication comprising:

at a mobile station:

maintaining at least a first communication group set comprising an ordered list of two or more user groups for the purpose of scanning for radio frequency activity among some or all of the groups; and

conducting a surveillance procedure periodically to determine if there is any radio frequency activity comprising a communication amongst ~~the~~each group;

wherein the first communication group set comprises user groups (A, B, C) which communicate together by direct mode communication on an associated direct mode radio frequency channel for the group, and

wherein each of the direct mode radio frequency channels associated with the groups of the ordered list is sampled periodically to determine if there is any radio frequency activity comprising a direct mode communication on the direct mode radio frequency channel.

21. (Previously Presented) The method according to claim 20 wherein each of the direct mode radio frequency channels is sampled to detect a presence signal indicating presence of a particular group associated with the direct mode channel on the direct mode channel.

22. (Previously Presented) The method according to claim 20 wherein samples of some or all consecutive group radio frequency channels whose state is free or unknown are conducted in a single frame.

23. (Previously Presented) The method according to claim 20 wherein if there is currently no group activity on any of the surveyed channels, then a mobile station acting as a first master mobile station initiating a call or service to start on any of the groups determines a physical and logical time division pattern for all surveyed channels.

24. (Previously Presented) The method according to claim 20 wherein all other mobile stations detecting a first call or service, synchronise to the time division pattern, adopting the same frame and slot numbering as a first master mobile station.

25. (Previously Presented) The method according to claim 23 wherein each master mobile station making a direct mode call transmits a presence signal in a specific time slot to indicate a group to which the call relates.

26. (Previously Presented) The method of direct mode radio communication according to claim 25 wherein the specific time slot in which a master mobile station transmits a presence signal is related to a position within the ordered list of the group that the master mobile station is communicating with.

27. (Previously Presented) The method of direct mode radio communication according to claim 26 wherein the specific time slot in which the master mobile station transmits is within a TETRA request bit map associated frame related to the position within the ordered list of the group that the master mobile station is communicating with.

28. (Previously Presented) The method of direct mode radio communication according to claim 26 wherein the master mobile station signals all call or service recipients that the TETRA request bit map associated time slots are not available for random access requests.

29. (Previously Presented) The method of direct mode radio communication according to claim 26 wherein any slave or idle mobile station surveys a specific time slot on a relevant channel to determine if there is any radio frequency activity, the time slot channel being related to the position within the ordered list of the group that the slave or idle mobile station is currently surveying.

30. (Previously Presented) A mobile station for direct mode communication comprising:
storage means storing at least a first direct mode group set comprising an ordered list of two or more user groups together with their respective associated direct mode radio

frequency channels, for the purpose of scanning for alternative radio frequency activity among some or all of the groups;

wherein the mobile station is operable, for those groups in the ordered list whose radio frequency channel state is free or unknown, to conduct a channel surveillance procedure wherein each of the direct mode radio frequency channels associated with the groups of the ordered list is sampled periodically to determine if there is any radio frequency activity comprising a direct mode communication.

31. (New) The method of direct mode radio communication according to claim 20 wherein the surveillance procedure is performed independent of whether the mobile station is in an idle state or whether the mobile station is participating as a listener in a direct mode communication.

32. (New) The method of direct mode radio communication according to claim 20 further comprising permitting the mobile station to join a call from any group for which direct mode communication was detected by the surveillance procedure as a listener or to initiate a call to members of the detected group.